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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,351	05/30/2001	Wilhelm-Martin Plotz	P01,0137	6281

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EXAMINER

LEUNG, CHRISTINA Y

ART UNIT PAPER NUMBER

2633

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/807,351	Applicant(s) PLOTZ ET AL.	
	Examiner Christina Y. Leung	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2005 and 04 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 04 January 2004 has been entered.

### ***Claim Objections***

2. Claims 3-5 are objected to because of the following informalities:

Examiner respectfully notes that the terminology in claims 3-5 is inconsistent with the terminology in claim 1 on which they depend.

Claim 3 recites "exchangeable second optical couplers with grating filters." Claim 4 recites "exchangeable second optical couplers which are tuned to other wavelengths." Claim 5 recites "wherein said second optical coupler has a further connection via which said reflected signals are led to an optical sink."

Examiner respectfully notes that claim 1, before the current amendment, previously recited "a second optical coupler...being designed as a grating filter with bandstop properties," but the currently amended version of claim 1 now recites two separate elements: "a bandstop filter apparatus" and "a second coupler, coupled to the output of the bandstop filter apparatus." Based on Applicants' specification, Examiner respectfully suggests amending claims 3-5 to refer to the bandstop filter (instead of the second coupler), since the second coupler element alone recited in claim 1 does not currently appear to provide the filtering or reflecting (as it did in the

Art Unit: 2633

previous version of the claim). Also, claim 1 recites “second coupler” while claims 3-5 currently recite “second *optical* coupler”; any references to this coupler element should be consistent in the claims.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar (US 5,778,188 A) in view of Liu et al. (US 6,208,443 B1).

Regarding claims 1 and 8, Sridhar discloses an add-drop apparatus for launching and outputting optical signals (Figure 1), comprising:

a branching coupler 20 having an input, to which incoming signals are fed from the optical ring network, the first coupler having a first output and a second output (column 4, lines 10-19);

a bandstop filter apparatus (filters 40), having a first input connected to the first output of the branching coupler, and wherein the bandstop filter apparatus is tuned to a wavelength of a signal to be launched, so that an incoming optical signal having this wavelength is reflected, and incoming signals having all other wavelengths are passed at an output (column 5, lines 1-10);

Art Unit: 2633

a second coupler 30, coupled to the output of the bandstop filter apparatus, the second optical coupler further having an add input into which the outgoing signal to be launched is fed against its transmission direction, reflected, and added to the passed signals; and

a further optical filter (such as filter 66A), connected to the second output of the branching coupler, via which an incoming optical signal is output.

Further regarding claims 1 and 8, Sridhar discloses that the add-drop apparatus is used in an optical network (column 1, lines 6-11 and 58-67) but does not specifically disclose a unidirectional optical ring network. However, Liu et al. teach an optical wavelength division multiplexing system related to the one disclosed by Sridhar and including add-drop apparatuses (such as shown in Figure 5). Liu et al. further teach an optical unidirectional ring network (Figure 15A), comprising:

a plurality of network nodes 610, in which data signals are transmitted in wavelength-division multiplex operation via optical fiber and every network node is assigned for its data signal to be emitted an assigned transmission channel with a transmission band used only once; and

at least one network node 610 having an add-drop arrangement/apparatus (column 11, lines 40-65).

Regarding claim 9 in particular, Liu et al. further teach a second further fiber provided for protection purposes (Figure 16 A; column 11, lines 66-67; column 12, lines 1-8).

Regarding claims 1, 8, and 9, it would have been obvious to a person of ordinary skill in the art to provide an optical network having a ring topology such as taught by Liu et al. with the add-drop apparatus disclosed by Sridhar as a way to connect a plurality of users together and

Art Unit: 2633

allow them to transmit and receive signals. One in the art would have been particularly motivated to use the ring network taught by Liu et al. in order to advantageously provide alternative protection paths if a connection between nodes fails.

Regarding claim 2, Sridhar disclose that the further optical filter (i.e., filter 67A) of the add-drop arrangement is configured to output different transmission channels. Sridhar et al. in column 9, lines 52-55, discloses that the “optical selectors,” (such as element 63A, which includes further filter 67A) may comprise tunable filters.

Regarding claim 5, as well as the claim may be understood with respect to the claim objection discussed above, Sridhar discloses a further connection via which signals reflected from the bandstop filters 40 are led to an optical sink (one of low reflectivity ports 67A-D) if they are not reflected by one of corresponding further filters 66A-D.

5. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar in view of Liu et al. as applied to claims 1 and 2 above, and further in view of Fatehi et al. (US 6,519,064 B1)

Examiner notes that “Fatehi et al. (US 6,519,064 B1)” is a different reference than “Fatehi (US 6,122,096 A),” which was cited in the previous action but is not relied upon in this action.

Regarding claims 3 and 4, as well as the claims may be understood with respect to the claim objections discussed above, Sridhar in view of Liu et al. suggest a system as discussed above with regard to claims 1 and 2, including a further optical filter configured to output different transmission channels. Sridhar further discloses that the bandstop filters 40 may also

Art Unit: 2633

comprise tunable grating filters that can be tuned to other wavelengths (column 5, lines 32-35; column 9, lines 52-55).

Sridhar do not specifically disclose other further filters which can be exchanged or switched over or exchangeable bandstop filters. However, Fatehi et al. teach an implementation of an adjustable grating filter such as already generally disclosed by Sridhar, wherein grating filters tuned to different wavelengths can be exchanged or switched over (Figures 2 and 4A-C; column 8, lines 20-65). Regarding claims 3 and 4, it would have been obvious to a person of ordinary skill in the art to use the exchangeable filters taught by Fatehi et al. as the further filter and bandstop filter in the system described by Sridhar in view of Liu et al. as a way to implement the adjustable filtering already disclosed by Sridhar. One in the art would have been particularly motivated to use the filters taught by Fatehi et al. in order to allow the system to advantageously change wavelengths in a reconfigurable and scalable way, and without disrupting communications (column 2, lines 36-48).

#### ***Response to Arguments***

6. Applicants' arguments with respect to claims 1-5, 8, and 9, filed 04 January 2005, have been considered but are moot in view of the new ground(s) of rejection. Examiner respectfully notes that Sridhar discloses an add-drop apparatus comprising couplers.

#### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina Y. Leung whose telephone number is 571-272-3023. The examiner can normally be reached on Monday to Friday, 6:30 to 3:00.

Art Unit: 2633

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christina Y Leung  
Christina Y Leung  
Patent Examiner  
Art Unit 2633